Enclosure 2

The following provides additional analysis and support for reclassifying the Evansville urban area.

The Evansville Urban area shows attainment for 2002 - 2004.

The monitoring sites in the Evansville area show attainment, except Dubois County, as seen below in Table 1.

Table 1: Design Values for $PM_{2.5}$ sites

County	2000-2002	2001-2003	2002-2004
Dubois *	16.7	16.2	15.5
Knox	13.8	13.9	13.6
Spencer	15	14.4	13.6
Vanderburgh Mill Road *	15.5	15.2	14.7
Vanderburgh U of E *	15.7	15.1	14.7
Vanderburgh Civic Ctr. *	15.7	15.5	14.5

*FRM monitors

There are three $PM_{2.5}$ monitors in the Evansville Urban Area. The annual means and design values have trended downward since 2000. The 2002 through 2004 monitor design values for all three sites in the Evansville Urban Area represent air quality that is in compliance with the $PM_{2.5}$ annual standard, as shown in Tables 1 and 2. Consequently, had the U.S. EPA designated the Evansville Urban Area as a separate nonattainment area, Vanderburgh, along with Warrick County and Montgomery Township in Gibson County, both in the Evansville MSA, would be eligible for the nonattainment designation to be withdrawn prior to the effective date.

Table 2: Annual Mean Values for $PM_{2.5}$ sites

County	2001	2002	2003	2004
Dubois *	16.5	16.3	15.7	14.4
Knox	13.4	14.2	14.0	12.6
Spencer	14.5	14.1	14.6	12.2
Vanderburgh Mill Road*	15.2	15.3	15.3	13.5
Vanderburgh U of E *	16.2	15.2	15.1	13.7
Vanderburgh Civic Ctr. *	15.4	15.4	14.9	13.2

*FRM monitors

Rural background monitors are located east of Warrick County in Spencer County and North of Gibson County in Knox County. To a significant degree, the Spencer

monitor receives air masses from utilities located outside Indiana. The Spencer and Knox monitors have 2004 design values of 12.2 ug/m^3 and 12.5 ug/m^3, respectively, indicating high background levels coming into the area, despite being below the standard. The Spencer County site is only 15 miles from the Dubois County site. These values also are an indication that $PM_{2.5}$ concentrations in the neighboring counties could be below the standard if monitors were present.

All counties should not be combined into the same non-attainment area

Once again, Indiana urges the U.S. EPA to reconsider its six-county designation, and at a minimum reclassify the region as two separate nonattainment areas and withdraw the nonattainment designation for the Evansville urban area based on the 2004 monitoring data.

Indiana strongly disagrees with the U.S. EPA's assumption that sources outside of Dubois County are contributing to monitored $PM_{2.5}$ violations within the central part of the county. Background concentrations are relatively high at all sites in the region, although all except Dubois are below the standard. While monitored $PM_{2.5}$ concentrations at the Dubois County site show a regional influence, they are also impacted by local sources and activities and are not reflective of regional air quality. Table 3 illustrates the high values, for this purpose all days in which one of the sites is above 20 ug/m^3, at the monitors located in these areas. Note that while Jasper generally has more values in this range than the others, the numbers for all sites are similar. Attachment 1 further shows that on days when one site was in this range, so were the others. It also shows that values were generally within a few ug/m^3 across the sites. Also note from this chart that surface level wind directions associated with the high days vary greatly. Vanderburgh County and most utilities in SW Indiana are south and west of Dubois County. Only about 20% of the high values occur with these wind directions and on these days generally all sites are also high. There is no strong scientific proof that indicates that Vanderburgh County sources or utilities in any of the other counties contribute to high values in Dubois County more than any other regional source.

Table 3: Analysis of data values 20 ug/m^3 and over

County	# of days=> 20 ug/m3			Wind Direction (All Years Combined)				# of days=> 30 ug/m3		
	2002	2003	2004	SW-W	S-SE	N-NE-NW	Varied N or S	2002	2003	2004
Dubois	28	26	21	16	21	21	14	6	9	3
Knox	17	26	17					3	4	3
Spencer	14	10	8					0	3	0
Vanderburgh CAAP	19	22	18					6	7	0
Vanderburgh Uof E	20	21	20					7	7	0
Vanderburgh Civic Center	21	21	15					7	8	0

Dubois County is impacted by local sources

As mentioned above, the Dubois County monitor (in Jasper) continues to exceed the standard. Historically, there have been higher levels of particulate in Jasper, even going back to the time when TSP was of concern. The Jasper $PM_{2.5}$ monitor is installed at the Post Office, near the town square to monitor Jasper particulate levels. It is classified as a "Neighborhood Scale" site, monitoring air representative of a 0.5 - 4 Km radius, by EPA's definition. The Jasper monitor was not intended to and is not monitoring regional air quality, or even necessarily Dubois County air quality, but is monitoring air quality from downtown Jasper. There are several local factors which are believed to adversely impact this monitor.

The monitor is installed in the heart of downtown Jasper. Highway 231 passes within 200 meters of the monitor and hundreds of semi-trucks travel this route daily. These semi-trucks are moving slowly, starting, shifting and stopping numerous times through downtown Jasper, creating considerable amounts of diesel exhaust. There is also the Municipal electric utility which burns coal, located nearby on the northeast side of town. Jasper and nearby Huntingburg are home to many wood furniture facilities, which emit large amounts of VOCs. Many of the facilities also burn sawdust, bark or scrap wood in their boilers for heating purposes. Many of these boilers are older models, some dating back to WWII, and are less efficient than modern boilers.

It is not proper to use Jasper monitoring data to designate large portions of South Western Indiana as nonattainment. The $PM_{2.5}$ nonattainment designations have been inconsistently imposed. There are rural counties near to Dubois County in other states that could be impacting $PM_{2.5}$ concentrations as much or more than Gibson, Spencer, or Pike Counties, but EPA has proposed those counties as attainment/unclassifiable. A

regional approach to controls, rather than in arbitrarily selected counties, will be required to reduce background levels of emissions.

Attachment 1

2002

	Dubois	Knox	Spencer	Civic Center	Fire Station #17	U of E	Wind Direction
1/2/2002	21.6	13.2	20.2		18	21.1	NW - NE
1/20/2002	20.6	15.6	18.6	16.7	17.1	16.7	SE-S
3/18/2002	23.9	18		21.7	19.9	21.7	N-NE
6/4/2002	24.7			22.5	22		S-SW
6/10/2002	21.9	21.9		21.3	22.6		SE-S
6/19/2002	28.2	28.3	27.8	31.5	31.3	31.7	SE-S
6/22/2002	31.6	38.6		34.7	34.4	35.1	E-SE
6/25/2002	20.8	15.5	20.5	11.1	10.3	11.9	SE-SW
7/1/2002	27.2	25.3	27.2	27.1	30.6	27.5	N*
7/4/2002	33.9	35.9		54.6	44.9	55.7	NE*
7/10/2002	22	19.9		22.6	21.8	23	NE*
7/13/2002	29.4	28.7	26.5	27	26.5	27	NE*
7/16/2002	43.1	43.8		46.7	49.5	46.2	SE*
7/22/2002	23.5			18.5	19.9	18.6	
7/25/2002	20.3	21.4	25.3	28.3	29.7	28	NE-SE*
7/31/2002	23.3	18.9	26.7	13.9	14.9	13.9	
8/3/2002	45.6			55.6	54.1	53.2	SE*
8/12/2002	24.5	24	24.3	22.8	23.4	23	SE-SE*
8/21/2002	25.1	26.2		24.2	26.3	24.4	SE-S
8/27/2002	23.8			25	24.7	24.5	N-NE
8/30/2002	25.5		22.3	21.3	21.5	21.6	NE-E
9/2/2002	21.3			19.5	20.2	19.2	SE-SW
9/8/2002	36.3			43.8		42.7	SE-SW
9/17/2002	27.8	24.7	28.4	32.3		31.5	SE
9/29/2002	21.7	25.2	20.6	24.7	24.9	23.3	E-SE
11/28/2002	20.4		18.2	14.7	16	16.7	SW
12/7/2002	31.5			26.9	28.3	27.7	S-SW
12/10/2002	25		21.5	23	23.2	21.6	NE

*Evansville data substituted

2003

	Dubois	Knox	Spencer	Civic Center	Fire Station #17	U of E	Wind Direction
1/30/2003	38.2	27.2		30	30	29.7	NE-S
2/26/2003	29.1	24	22.4	25.3	23.3	22.7	NE-S
3/1/2003	52.9	49.8		32.5	31.4	34.2	NW
3/7/2003	18.1	21.6		25.4	23.6	25.6	SE-SW
3/13/2003	50	29.3		31.1	30	30.3	NW-SE
4/18/2003	30.2	28.3		32.8	36.6	38.2	SW-NW
6/17/2003	25.1	27.7			27.8	29.8	NW-NE
6/23/2003	16.4	24.2			28	24.6	SE
6/29/2003	21.4	22.1		22.2	25.2	22.5	SE-SW
7/2/2003	21.4	34.4	24.7	22	24.2	22.3	NW
7/5/2003	20.8	18.6				16.5	SW
7/14/2003	22	25.7	22.9	24.6	26.2	24.8	SE
7/20/2003	38	29		36.2	34.1	35.9	S-SW
7/26/2003	24.6	22	24.8	19.7	21	19.3	S-SW
8/1/2003	31.4	26.4	27.9	20.9	20.8	19.6	SW
8/13/2003	38	33.9	34.6	31.7	32.7	32.2	NE-SE
8/16/2003	26	21.9		24.2	23.2	24.4	NW
8/19/2003	24.4	22.7		23.5	22.8	23	N-SE
8/22/2003	25.7	25.7		23.4	23.4	22.1	S-SW
8/25/2003	31.6	27.8	31	30.4	32.5	30.3	SW
8/28/2003	21.7	18.6		14.6	14.7	13.9	S-SW
9/12/2003	39.5	37.9	38.1	34.5		35.2	SE
9/18/2003	20.5	19.7	20	25.9	23.8	25.1	NE
9/21/2003	20.8	17.4		21.1	24.2	21.3	NE-SE
10/9/2003	24.2	28.5		20.5	19.2	19.5	SE
1/11/2003	22	22.4	18.9	21.2	22	20	SW

2004

	Dubois	Knox	Spencer	Civic Center	Fire Station #17	U of E	Wind Direction
1/31/2004	24.2			15.7	20.3	16.2	N-SE
2/3/2004	23.8	18.7	22.5	24.7	23.2	24.7	W
2/18/2004	27.1	27.4		25.0	25.0	26.5	Calm
2/24/2004	30.0	30.0		29.1	29.1	29.1	Calm
5/12/2004	22.2	20.1		19.6	19.0	19.3	SE-S
6/5/2004	26.3	26.8		22.0	24.5	23.2	SE-S
6/8/2004	26.3	22.7	20.5	15.5	17.0	16.4	SE-S
6/29/2004	20.8	15.0		22.3	23.1	22.8	NW-NE
7/20/2004	25.7	27.5	22.2	22.2	23.6	23.6	SE-SW
7/29/2004	22.2	26.4		24.7	23.8	24.5	NE-SE
8/1/2004	19.4	16.4	18.7	23.8	22.9	27.1	NE
8/4/2004	38.9	22.2		23.4	23.5	24.6	NW-SE
8/16/2004	17.2	18.9		19.3	18.7	20.5	SE-SW
8/19/2004	23.5	22.0	25.3	28.4	27.6	28.3	SW
8/22/2004	15.8	20.0		19.8	19.0	19.5	S
9/3/2004	31.4	33.0		25.8	26.8	26.9	SE-S
9/6/2004	22.2	23.0	19.8	19.7	20.5	20.5	SE-SW
9/12/2004	26.7	25.4	26.4	27.7	27.0	27.2	SE
9/24/2004	25.8	22.9	23.9	25.0	24.0	24.5	NW
10/9/2004	29.9	31.3		29.7	29.7	29.8	S-SW
10/21/2004	22.8	21.0		19.5	18.0	20.1	N-E
11/23/2004	25.9	11.9	23.8	22.6	20.2	21.8	NW-SE
12/17/2004	24.1	16.5	21.2	18.4	19.1	23.0	SW-NW
12/26/2004	28.2	22.1			22.6	23.2	NW-SE